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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/923,138	09/04/97	KUCHERLAPATI	R CELL-4.8
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HM22/1002

EXAMINER

BECKERLEG, A

ART UNIT	PAPER NUMBER
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1632

DATE MAILED:

10/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/923,138

Applicant(s)

KUCHERLAPATI ET AL.

Examiner

Anne M Beckerleg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-47 is/are pending in the application.
- 4a) Of the above claim(s) 4-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,46 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Applicant's amendment received on 6/25/01 has been entered. Claim 1 has been canceled. New claims 46-47 have been added. Claims 2-47 are pending in the instant application. Of these, claims 4-45 have been previously withdrawn from prosecution as being drawn to an invention non-elected with traverse in paper no. 11. Claims 2-3 and 46-47 are currently under examination in the instant application. An action on the merits follows.

The text of those sections of Title 35, US code, not included in this action, can be found in previous office actions.

Specification

In regards to the improper incorporation of essential material in the specification by reference to a PCT application WO 94/02602, the applicant has stated that the specification has been amended to incorporate pages 39-141 of PCT application WO 94/02602, published 3 February 1994. However, the applicant, while providing the appropriate pages from the WO 94/02602 document and a declaration by Jane T. Gunnison which states that the amendatory material inserted in the specification at pages 39-141 consists of the same material incorporated by reference in the application, has not actually requested that these pages be inserted into the text

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of the instant specification. Therefore, applicant's amendment of the specification to recite on pages 1, 2, 8, and 20, that the PCT application WO 94/02602 is incorporated herein at pages 39-141 is incorrect. Thus, the reference to PCT application WO 94/02602 is still improper. It is suggested that applicant's overcome this issue by requesting the amendment of the specification to include pages 39-141 of PCT application WO 94/02602 as provided.

The amendment filed 6/25/01 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: new claims 46-47 recite a transgenic mouse which particular genetic features including the insertion of a SpeI-SpeI fragment commencing from the VH6 gene and continuing through the human D segment genes, human J segment genes and human constant region genes and into the C δ gene of that locus, wherein said SpeI-SpeI fragment does not include a gamma constant region. This SpeI-SpeI fragment is not supported by the instant specification.

Applicant is required to cancel the new matter in the reply to this Office action. However, it is noted that the amendment of the specification to include pages 39-141 of PCT application WO 94/02602 as provided will overcome this objection.

Claim Rejections - 35 USC § 112

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The rejection of claims 1-3 under 35 U.S.C. 112, first paragraph, for lack of enablement is maintained over amended claims 2-3 and new claims 46-47. Applicant's arguments have been fully considered but have not been found persuasive in overcoming the following instant grounds of rejection of the claims for reasons of record as discussed in detail below.

The applicant argues that the claims as amended are now limited to transgenic mice which contain a human mu constant region and a human kappa light chain locus but which do not contain a human gamma constant region, and as such meet the scope of enablement identified by the examiner in the previous office action. However, while the claims have been amended to indicate that the human antibodies are produced in transgenic mice which contain a SpeI-SpeI fragment of the human heavy chain locus and a kappa light chain locus from human chromosome 2, the amended claims continue to read on a human immunoglobulin of any isotype. As stated previously, the specification does not provide sufficient guidance for making transgenic mice capable of producing human antibodies of any isotype other than IgM. Further, the claims as amended now read specifically on transgenic mice which contain a contiguous fragment of the human immunoglobulin heavy chain locus that terminates at the C δ gene, and which does not include a gamma constant region. Thus, the transgenic mice recited in the claims are not capable of producing a human immunoglobulin that is IgE, IgA, or IgG. Therefore, in order to properly reflect the scope of the instant invention, it is suggested that the claim preamble be amended to recite a "human IgM immunoglobulin".

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The rejection of claims 1-3 under 35 U.S.C. 112, second paragraph, is withdrawn in view of applicant's cancellation of claim 1 and amendment of claims 2-3 to depend on new claims 46-47.

Claims 2-3 and 46-47 are newly rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite a "fully" human immunoglobulin variable region. It is unclear what is meant by the term "fully" human. It is unclear whether the applicant intends for the claim to read on human antibodies produced by the transgenic mice which are identical to human antibodies produced by human B cells including glycosylation patterns, or whether the applicant simply intends to indicate that the human immunoglobulins produced are not chimeric and do not comprise any murine immunoglobulin variable sequences. Clarification is requested.

Claim Rejections - 35 USC § 103

The rejections of claims 1-3 under 35 U.S.C. 103 over Surani et al., Bruggemann et al., and Krimpenfort, or Krimpenfort and Lonberg, are withdrawn in view of applicant's cancellation of claim 1 and amendment of claims 2-3 to depend on new claims 46-47. It is noted that new claims 46-47 recite a transgenic mouse which comprises a SpeI-SpeI fragment from the

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unrearranged human genomic heavy chain locus. The prior art of record does not teach or suggest making a transgenic mouse which comprises said SpeI-SpeI fragment.

No claims are allowed.

Any inquiry concerning this communication from the examiner should be directed to Anne Marie S. Beckerleg, Ph.D., whose telephone number is (703) 306-9156. The examiner can be reached Mon-Thurs and every other Friday from 9:30-7:00. If the examiner is not available, the examiner's supervisor, Karen Hauda, can be reached at (703) 305-6608. General inquiries should be directed to the group receptionist whose phone number is (703) 308-0196. The official fax number is (703) 308-4242.

Dr. A.M.S. Beckerleg

**A.M.S. BECKERLEG,
PATENT EXAMINER**

A handwritten signature in black ink, appearing to read 'A.M.S. Beckerleg', with a long horizontal line extending to the right.